

Application No. 10/626,856  
Amd. dated December 22, 2006  
Reply to September 22, 2006 Communication

Docket No. D/A3052-311290

### REMARKS

Claims 1-37 are pending. Claims 19 and 35 are amended for clarification without prejudice or disclaimer. No new matter is added. Reconsideration in view of the following remarks is respectfully requested.

Claim 19 is amended to depend from claim 18 rather than claim 17. The Communication currently assumes this dependency. See Communication at, for example, page 12, lines 14-15.

The Communication objects to claims 1 and 35 for failing to underline new information and objects to the typographical error in claim 35 as omitting the word "story". Applicants note that the change indicators in the Supplemental Amendment of June 8, 2006 correctly reflect the changes of claim 1 with respect to the claims, as previously amended by Applicant on May 23, 2006. Thus, Applicants respectfully request the withdrawal of the objection to claim 1.

Claim 35 is amended to add the word "story" as suggested by Examiner Lovel. Applicants therefore request the withdrawal of the objection to claim 35.

The Communication rejects claims 35-36 under 35 U.S.C. § 102(a) in light of "Relevance Models for Topic Detection and Tracking" by V. Lavrenko et al. (hereafter Lavrenko). This rejection is respectfully traversed.

Applicants respectfully submit that Lavrenko fails to disclose, teach or even suggest at least the features directed to: 1) determining a first source-identified story associated with at least one event; 2) determining a second source-identified story associated with at least one event; 3) determining a story-pair based on the first source-identified story and the second source-identified story; 4) outputting an indicator of

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inter-story similarity between the first and second story based on at least one of: an event frequency model, story segmentation and a source-identified inter-story similarity metric, as recited in independent claim 35.

Lavrenko merely describes extending relevance modeling to the link detection task of Topic Detection and Tracking (TDT) and shows that it substantially improves performance. See Lavrenko, at for example, Abstract, lines 1-3. However, there is simply no discussion in Lavrenko of source-identified sources nor of a source-identified inter-story similarity metric. The Communication asserts that Lavrenko at Section 3.2, Measuring Topic Similarity discloses source-identified stories. However, Applicants respectfully submit that this portion of Lavrenko describes comparing models. Thus, Lavrenko fails to disclose at least these features of independent claim 35. Claim 35 therefore defines patentable subject matter over Lavrenko. Claim 36 depends from claim 35 and therefore defines patentable subject matter for at least the same reasons. Applicants therefore respectfully request the withdrawal of the 35 U.S.C. § 102(a) rejection of claims 35-36.

The Communication rejects claims 1-2, 7-17, 22-34 and 37 under 35 U.S.C. § 103(a) based on "Topic Detection and Tracking Pilot Study Final Report" by James Allan et al. (hereafter Allan1) in light of "Relevance Models for Topic Detection and Tracking" by V. Lavrenko et al. (hereafter Lavrenko). This rejection is respectfully traversed.

Applicants respectfully submit that Allan1 alone or in combination with Lavrenko does not disclose, teach or even suggest at least the features directed to: 1) determining at least one story characteristic based on at least one of: an average story similarity story characteristic and a same event-same source story characteristic; 2) determining a source-identified story corpus, each story associated with at least one event; 3)

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determining a source-identified new story associated with at least one event; 4) determining story-pairs based on the source-identified new-story and each story in the source-identified story corpus; 5) determining at least one inter-story similarity metric for the story-pairs; 6) determining at least one adjustment to the inter-story similarity metrics based on at least one story characteristic; and 7) outputting a new story event indicator if the event associated with the new story is similar to the events associated with the source-identified story corpus based on the inter-story similarity metrics and the adjustments, as recited in independent claim 1 and similarly recited in independent claims 16, and 31-32.

Allan1 describes a study of various systems for topic detection and includes systems from several participants. Some of the primary participants included "DARPA, Carnegie Mellon University, Dragon Systems, and the University of Massachusetts at Amherst". (See for example, Allan1, Abstract, lines 9-12)

A part of the final report of the pilot study included an evaluation of each system on each portion of the program. The Communication at p. 5, lines 11-13, asserts that the features in the claims directed to: 1) determining at least one story characteristic based on at least one of: an average story similarity story characteristic and a same event-same source story characteristic are described in Allan1, Section 3.1, lines 34-44.

The Communication asserts that a cluster is considered to represent a source, (See for example, Communication, p. 5, lines 12-13).

In contrast, Allan1 states that a "[c]luster is an index number in the range {1, 2, ...} which indicates that cluster (event) affiliation of the story. Applicants respectfully submit that the Communication assertion is inconsistent with the definition provided by Allan1 and cannot support

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the asserted rejection. (See for example, Allan1, Section 3.1, at for example, lines 15-16).

Moreover, the failure of Allan1 to disclose, teach or even suggest the features of source-identification precludes any assertion that Allan1 describes source-identified stories.

The Communication later argues in the Response to Arguments, and contrary to earlier assertions that “the degree of match between an event and a cluster; *a cluster is considered to represent a source*);” (See Communications at for example, p. 5, lines 12-13, emphasis added) and now asserts that “[t]he cluster is considered to represent a group of events. The source is considered to be the TDT corpus. Therefore, the source is the same for all of the clusters, which means the clusters are organized by event and source.” (Communication at for example, p. 14, lines 8-11.)

Applicants understand this to mean that the Communication asserts that the reference is from only one source. However, p. 5, lines 16-18 of the Communication assert that the TDT corpus is comprised of stories from Reuters newswire and CNN broadcast news transcripts. This is simply inconsistent with assertions made in the Communication that all stories are from the same source. Thus, at least these features of claim 1, similarly recited in independent claims 16 and 31-32 define patentable subject matter over Allan1, alone or in combination with Lavrenko. Claims 2-15, 33-34 and 37 depend from independent claims 1, 16 and therefore define patentable subject matter for at least the same reasons. Applicants therefore respectfully request the withdrawal of the 35 U.S.C. § 103(a) rejection of claims 1-2, 7-17, 22-34 and 37.

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The Communication rejects claims 3-5, and 18-20 under 35 U.S.C. § 103(a) based on Allan1-Lavrenko in light of U.S. Patent 6,584,220 (hereafter Lantrip). This rejection is respectfully traversed.

The Communication asserts that the various approaches discussed in Allan1, when combined with Lavrenko and Lantrip meet the features of dependent claims 3-5 and 18-20.

As discussed in Applicants previous response, Lantrip discloses an interesting 3 dimensional display for a document set. However, Lantrip fails to remedy any of the deficiencies of the Allan1-Lavrenko combination. In particular, Applicants note that Lantrip Fig. 6, described as a block diagram presenting the sequence steps, indicates in element 606-610 that distances to the centroids are calculated. Thus, Lantrip, even if properly combined with Allan1 and Lavrenko, provides an asserted combination that also fails to remedy the above-described deficiencies.

The Communication rejects claims 6-21 under 35 U.S.C. § 103(a) based on Allan1-Lavrenko in light of "On-Line New Event Detection and Tracking" by J. Allan et al., (hereafter Allan2). This rejection is respectfully traversed.

The Communication asserts that Allan1-Lavrenko when combined with Allan2 meets the features of claims 6 and 21. However, Allan2 also fails to disclose, teach or even suggest how to remedy the deficiencies of the Allan1-Lavrenko and/or Lantrip combinations as discussed above. Thus, dependent claims 6 and 21 define patent subject matter over Allan1, Lavrenko, Lantrip and Allan2 either alone or in combination. Applicants therefore respectfully request the withdrawal of the 35 U.S.C. 103(a) rejections of claims 6 and 21.

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Applicants' respectfully submit this application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited. However, should the Examiner believe anything further is desirable in order to place this application in even better condition for allowance; the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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Date: December 22, 2006

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